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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,252

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EXAMINER

HOLWERDA, STEPHEN

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/553,252	<b>Applicant(s)</b> MATHEVON ET AL.	
	<b>Examiner</b> STEPHEN HOLWERDA	<b>Art Unit</b> 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/28/2010</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Amendment received 28 April 2010 is acknowledged. Claims 1-10, 12-17 and 19-23 are pending and have been considered as follows.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 12-13, 15-17, 19-20 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosoya et al. (JP7246908A or JP3105391B2; see attached machine translation).

As per Claim 1, Hosoya discloses a pedestrian detection system (35, 37, 38) (Figs. 7, 9; paragraph 0023) for a motor vehicle (30) (Figs. 7-9; paragraph 0023) having a hood (32) (Figs. 7, 9; paragraph 0023) generally extending from the front of the vehicle (30) to a windshield of the vehicle (30) (Figs. 7-9; paragraph 0023), the detection system (35, 37, 38) (Figs. 7, 9; paragraph 0023) comprising: a first sensor arrangement (37, 38) (Figs. 7-9; paragraph 0023) located more than 0.5 metres behind the front of the vehicle (sensor 37) to detect at least one of the speed and the distance to a part of an object (P1, P2) located in front of the vehicle (30) (Figs. 7, 9; paragraph 0023), the part of the object (P1, P2) extending above a predetermined height

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(paragraph 0023), the predetermined height being at least the height of a front edge of the hood (paragraph 0023; via sensor 38); and a second sensor arrangement (35) mounted at the front of the vehicle (30) responsive to an impact of the vehicle (30) with the object (P1, P2) (Figs. 7-9; paragraph 0023, 0026-0027), the detection system (35, 37, 38) is cooperatively configured with a pedestrian protection arrangement (33) (Figs. 7-9; paragraph 0023, 0026-0031) to activate the pedestrian protection arrangement (33) in response to the first sensor arrangement (37, 38) detecting at least one of a distance below a threshold distance and a speed above a threshold speed (Figs. 7-9; paragraph 0023, 0026-0031), wherein the pedestrian protection arrangement (33) has at least two modes of activation (33a, 33b) (Figs. 8, 10; paragraph 0028-0033).

As per Claim 2, Hosoya further discloses wherein the first sensor arrangement (37, 38) is a microwave radar sensor (paragraph 0032; specific wavelength is matter of design choice, see MPEP 2144.04).

As per Claim 3, Hosoya further discloses wherein the first sensor arrangement (37, 38) is an infra-red radar sensor (paragraph 0032; specific wavelength is matter of design choice, see MPEP 2144.04).

As per Claim 4, Hosoya further discloses wherein the first sensor arrangement (37, 38) is a camera (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 5, Hosoya further discloses wherein the camera operates in the visible spectrum (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 6, Hosoya further discloses wherein the camera operates in the infra-red spectrum (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 7, Hosoya further discloses wherein the first sensor arrangement (37, 38) is a stereo-camera arrangement (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 8, Hosoya further discloses wherein the first sensor arrangement (37, 38) is mounted on the exterior of the vehicle (30) in front of the windshield provided on the vehicle (30) (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 9, Hosoya further discloses wherein the first sensor arrangement (37, 38) is mounted on the vehicle (30) behind the windshield (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

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As per Claim 10, Hosoya further discloses wherein the first sensor arrangement (37, 38) is mounted above the windshield (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 12, Hosoya further discloses wherein the threshold distance is less than the distance between the first sensor arrangement (37, 38) and the front of the vehicle (30) (paragraph 0023, 0028).

As per Claim 13, Hosoya further discloses wherein the second sensor (35) arrangement includes an accelerometer (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 15, Hosoya further discloses wherein the second sensor arrangement (35) includes a contact sensor mounted at the front of the vehicle (30) (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 16, Hosoya further discloses wherein the second sensor arrangement (35) is a sensor that can discriminate objects lighter than a pedestrian (paragraph 0032; specific embodiment of sensor is matter of design choice, see MPEP 2144.04).

As per Claim 17, Hosoya further discloses wherein the pedestrian protection arrangement (35, 37, 38) is activated only if the first sensor arrangement (37, 38) detects at least one of a distance to the object below the threshold distance and a speed above the threshold speed (paragraph 0023, 0026-0031), and also in the event the second sensor arrangement detects the object (35) (paragraph 0023, 0026-0031).

As per Claim 19, Hosoya further discloses wherein the pedestrian protection arrangement (35, 37, 38) incorporates at least two pedestrian protection devices (33a, 33b) (Figs. 8, 10; paragraph 0028-0033).

As per Claim 20, Hosoya further discloses wherein the pedestrian protection arrangement (35, 37, 38) incorporates a first lifter to lift a front part of the hood (lids for front airbags 33a in Fig. 10 as per 20, 21) (Fig. 5; paragraph 0014), and a second lifter to lift a rear part of the hood (lids for rear airbags 33b in Fig. 10 as per 20, 21) (Fig. 5; paragraph 0014), one mode of activation of the at least two modes of activation being the lifting of the front part of the hood (Fig. 8), and another mode of activation of the at least two modes of activation including additionally the lifting of a rear part of the hood (Fig. 10).

As per Claim 22, Hosoya further discloses wherein different modes are activated in response to a signal dependent on the first sensor arrangement (37, 38) reaching different thresholds (paragraph 0023-0031).

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As per Claim 23, Hosoya further discloses wherein at least one of the different thresholds is dependent upon the speed of the vehicle as measured by a third sensor arrangement (39) (Figs. 7, 9; paragraph 0031).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to



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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosoya et al. (JP7246908A or JP3105391B2; see attached machine translation) in view of Inada et al. (US Patent No. 5,183,288).

As per Claim 14, Hosoya discloses all the limitations of Claim 13. Hosoya fails to expressly disclose wherein the accelerometer is configured to provide a signal indicative of a crash situation and wherein, upon receipt of the signal, an internal safety device on the vehicle is actuated.

Inada discloses an airbag system in which an internal safety device (20) (Fig. 2) is actuated in response to a collision signal (column 5, line 24-52). Like Hosoya, Inada is concerned with vehicle safety systems.

Therefore, one of ordinary skill in the art would have found it obvious to apply the internal safety device of Inada to the sensor system of Hosoya since doing so would improve driver safety.

7. Claims 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hosoya et al. (JP7246908A or JP3105391B2; see attached machine translation) in view of Miyasaka et al. (US Pub. No. 2002/0014761).

As per Claim 21, Hosoya discloses all the limitations of Claim 1. Hosoya further discloses wherein the pedestrian protection arrangement (35, 37, 38) includes a mechanism to lift the rear part (lids as per 20, 21) (Fig. 5; paragraph 0014) of the hood (32) and at least one air-bag (33) to cover part of the windshield or a portion of an A-Pillar provided on the vehicle (32), and another mode of activation of the at least two modes of activation including additionally the activation of at least one of the air-bags (33b) (Fig. 10; paragraph 0028-0031). Hosoya fails to expressly disclose one mode of activation of the at least two modes of activation comprising the lifting of only the rear part of the hood.

Miyasaka discloses a pedestrian protection system in which only the rear portion of a hood (1) is lifted for deployment of airbags (18) in response to collision with a pedestrian (Fig. 2; paragraph 0030-0035). Such an arrangement improves installability without compromising safety (paragraph 0008). Like Hosoya, Miyasaka is concerned with pedestrian safety devices.

Therefore, one of ordinary skill in the art would have found it obvious to apply the hood lifting system of Miyasaka to the safety system of Hosoya since doing so would improve the installability of the system.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aiki et al. (JP9030368A or JP3212841B2; see attached machine translation) discloses a collision detection system including a collision sensor in the

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bumper (25) and a collision sensor near the windshield (27) (Figs. 3, 4; paragraph 0025-0027; see attached machine translation).

9. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 28 April 2010 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN HOLWERDA whose telephone number is (571) 270-5747. The examiner can normally be reached on M-F 7:30-5:00; alternate F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/sh/

Examiner

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/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664